PHYS 2002 General Physics II Lec. 3 Lab. 0 Cr. 3

**Effective Date:** Summer 2005-2006

**Course Description**

Prerequisite: A grade of "C"or better in PHYS 2001. Credit will not be given for both this course and PHYS 2102. A study of principles and applications of light, electricity and magnetism, and topics in modern physics.

**Course Objectives**

The general objective of this course is the development of an analytical and conceptual understanding of those areas of electromagnetism, optics, atomic and nuclear physics that are fundamental to study in science, engineering, and mathematics.

**Procedures to Evaluate these Objectives**

1. In-class problems after concept presentation
2. In-class exams
3. Cumulative final exam

**Use of Results of Evaluation to Improve the Course**

1. Student responses to in-class problems will be used to immediately help clarify any misunderstandings and to later adjust the appropriate course material.
2. All exams will be graded and examined to determine areas of teaching which could use improvement.
3. All evaluation methods will be used to determine the efficacy of the material presentation.

**Detailed Topical Outline**

1. Electrostatics
2. Capacitance and Capacitors
3. Electric current, resistance and Ohm's law
4. Direct current circuits
5. Magnetism
6. Reflection and refraction of light
7. Geometric optics and optical images
8. Wave optics
9. Atomic physics
10. Nuclear physics